

G1 structure within the cavity that fixedly retains the stone member within the cavity of the encasement member such that the stone member and encasement member are inseparable.

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13. (Amended) A dental model base encasement member comprising:

a dental model support surface;

a wall extending from said dental model support surface; said wall being

G2 generally perpendicular to said dental model support surface; said wall having an exterior and an interior surface; said wall interior surface defining a cavity; said cavity generally corresponding to the curvature of a gum; said cavity comprising a structure extending along a length of the cavity and adapted to fixedly engage a cast dental model base formed in the cavity.

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G3 16. The dental model base encasement member of claim 13 having a first end and a second end; a hemispherical socket formed in said wall exterior surface at said first end; a latch receiver on said wall exterior surface at said second end.

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21. (Amended) A dental model and base comprising:

a casting of a patient's teeth and gum;

a stone base supporting said casting; and

G4 an encasement member defining a cavity for containing said stone base,

the cavity comprising a structure that fixedly engages said stone base to secure the stone base to the encasement member.

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27. (Amended) A dental model base encasement member comprising:

a dental model support surface;

an opposing surface remote from said dental model support surface;

G5 a wall extending from said dental model support surface to said opposing surface; said wall having an interior surface and an exterior surface; said exterior wall having a hemispheric concavity formed therein at a first end, said concavity adapted to receive a spherical connector;

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said wall interior surface forming a cavity adapted to receive uncured casting material, said cavity shaped to correspond generally to the curvature of a patient's gum, and

said wall being rigid.

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28. The encasement member of claim 27 wherein said encasement member further comprises a latch receiver at a second end, said latch receiver being adapted to receive a latch connector.

29. The encasement member of claim 28 wherein said encasement member is detachably connectable to an articulator attachment plate having a spherical connector and a latch connector.

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35. (Amended) The encasement member of claim 29 wherein said concavity is adapted to receive a spherical member connected to an articulator attachment plate and said latch receiver is adapted to engage a latch connected to said articulator attachment plate.

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39. (Amended) A system for connecting a dental model to an articulator comprising:

an encasement member having a dental model support surface and an opposing attachment plate support surface, and a wall extending therebetween; said encasement member forming a cavity adapted to receive uncured casting material; said cavity adapted to grip said casting material when it cures; and

an articulator attachment plate; said articulator attachment plate extending along the attachment plate support surface and being connectable to said encasement member and to an articulator.

40. (Amended) A system for connecting a dental model to an articulator comprising:

an encasement member; said encasement member forming a cavity adapted to receive uncured casting material; said cavity comprising a structure adapted to grip said casting material when it cures into a stone member so as to form an inseparable member comprising the encasement member and the stone member; and

a ball and socket connector adapted to connect said encasement member to an articulator.

41. (Amended) A dental model assembly comprising:

an encasement member defining a cavity adapted to receive uncured casting material, the cavity shaped to generally correspond to at least a portion of a patient's gum line, the cavity being open adjacent opposite first and second sides of the encasement member; and

an attachment plate removably connectable to the encasement member, the attachment plate acting as a cover for enclosing the cavity adjacent the first side of the encasement member.

42. (Amended) The dental model assembly of claim 41, wherein the attachment plate connects to the encasement member by a snap-fit connection.

43. (Amended) A dental model assembly comprising:

a) a dental model base including:

i) an encasement member defining a cavity shaped to generally correspond to at least a portion of a patient's gum line;

ii) a stone member cast within the cavity, the stone member being shaped to generally correspond to the portion of the patient's gum line, the stone member defining at least one pin opening;

b) a dental model adapted to be supported on the dental model base, the dental model including at least one pin that fits within the at least one pin opening of the stone member; and

c) an articulator connected to the encasement member of the dental model base.